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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/982,672	10/18/2001	Frederic P. Atchley	624434-009	7656

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EXAMINER

MAYO, TARA L

ART UNIT PAPER NUMBER

3671

DATE MAILED: 11/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/982,672

Applicant(s)

ATCHLEY, FREDERIC P.

Examiner

Tara L. Mayo

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NW

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/18/01</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because it includes the word "said" on line 5. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a

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person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 through 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Houck et al. (U.S. Patent No. 5,015,123) in view of Hewlett (U.S. Patent No. 4,721,408) and Atchley et al. (U.S. Patent No. 5,516,229 A).

Houck et al. '123, as seen in Figures 4B, 4C and 5, show an effluent distribution assembly comprising:

with regard to claims 1, 18 and 22,

a polishing/distributing pipe (20) having a cylindrical shaped wall with a top half and a bottom half, an inlet and an outlet, and a plurality of holes formed in said wall (col. 4, lines 49 through 54); and

a plurality of receiver pipes (30) placed in a same row as said polishing pipe, each receiver pipe having a cylindrical shaped wall, an inlet and an outlet, and a plurality of holes formed in said wall (col. 5, line 53 through 65);

with regard to claims 2 and 19,

wherein said plurality of receiver pipes comprise four receiver pipes where two receiver pipes are placed on opposite sides of said polishing pipe in a single row;

with regard to claim 3,

further comprising connecting devices (35);

with regard to claim 4,

wherein said plurality of holes formed in the polishing pipe are in two generally straight parallel rows which are generally parallel with a length of said polishing pipe;

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with regard to claims 5 and 20,

wherein said plurality of holes are spaced at an angle of approximately 120 degrees from each other;

with regard to claims 6 and 24,

further comprising a cap (71 or 72) connected to said second end of said polishing pipe;

with regard to claims 9, 20 and 23,

wherein said holes in said plurality of receiver pipes are disposed in a configuration to optimize effluent distribution based on soil type;

with regard to claims 14 and 18,

further comprising a trench (12) having a depth, width and length with a base below ground level and generally parallel to said ground;

with regard to claims 15 and 18,

wherein said assembly is positioned in said trench whereby said assembly is generally displaced in a horizontal row, parallel to said ground level to maximize uniformity of effluent distribution;

with regard to claim 16,

wherein a plurality of said assemblies are disposed in a single column where a first end of a second assembly connects to a said second end of a first assembly whereby said polishing pipes connect with a respective polishing pipes and said receiver pipes connect with respective receiver pipes;

with regard to claim 22,

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wherein said plurality of receiver pipes are stacked first, generally vertically within said trench and said polishing pipe is stacked on top of said plurality of receiver pipes;

with regard to claim 23,

wherein said plurality of receiver pipes comprise four receiver pipes.

Houck et al. '123 disclose all of the features of the claimed invention with the exception(s) of:

with regard to claims 1, 18 and 22,

the plurality of holes being formed in the top half of the wall; and

a protective cover on a top and sides of the assembly;

with regard to claim 5,

the plurality of holes being approximately 30 degrees above the horizontal diameter of the polishing pipe;

with regard to claim 7,

the holes in the receiver pipes being in a plurality of generally straight, generally parallel lines spaced at an angle of approximately 60 degrees from adjacent lines;

with regard to claim 8,

the holes in the receiver pipes being in a plurality of generally straight, generally parallel lines spaced at an angle of approximately 45 degrees from adjacent lines;

with regard to claim 10,

an access port;

with regard to claim 11,

a connection device for connecting serial polishing pipes;
with regard to claim 12,

a marking disposed on the polishing pipe;
with regard to claim 13,

a marking disposed on the receiving pipe;
with regard to claim 17,

the protective covering comprising soil-impervious, liquid permeable fabric;
with regard to claim 18 and 20,
the holes being slots; and

with regard to claim 21,

a second assembly placed perpendicularly to a first assembly at the second ends of the first distribution pipe and the first plurality of receiving pipes.

Hewlett '408, as seen in Figures 2 through 4, shows an water distribution system comprising a cylindrically shaped effluent pipe (20) having a plurality of holes (26) formed in the top half of the pipe wall and teaches the same for effecting desired outward and downward seepage of water exiting the pipe (col. 3, lines 43 through 47).

Atchley et al. '229, as seen in Figure 1, show a drainage assembly comprising a plurality of polishing pipes (D) coupled end-to-end by a connector (234) and a plurality of receiver pipes (V), the polishing pipes and receiving pipes including reference stripes (236), wherein the assembly is protected by a soil-impervious, liquid permeable cover (102)

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positioned on the top and sides (106, 108) of the assembly, the liquid permeable nature of the cover improving the liquid distribution properties of the assembly (col. 5, lines 31 through 40). Atchley et al. '229 further teach altering the size, number, and placement of holes (308) in pipes (30) to alter the fluid retention time of the assembly (col. 5, lines 13 through 16).

With regard to claims 1 and 22, it would have been obvious to one having ordinary skill in the art of irrigation and drainage at the time the invention was made to modify the device shown by Houck et al. '123 such that the holes would be formed in the top half of the wall as taught by Hewlett '408 for effecting desired outward and downward flow.

With regard to claims 1, 17, 18 and 22, it would have been obvious to one having ordinary skill in the art of irrigation and drainage at the time the invention was made to modify the device shown by Houck et al. '123 such that it would include a protective cover over the top and sides of the assembly as taught by Atchley et al. '229. The motivation would have been to prevent clogging of the pipes by soil particles.

With regard to claim 5, it would have been obvious to one having ordinary skill in the art of irrigation and drainage at the time the invention was made to position the plurality of holes of the device shown by the combination of Houck et al. '123, Hewlett '408 and Atchley et al. '229 approximately 30 degrees above the horizontal diameter of the polishing pipe. The motivation would have been to effect even distribution of water exiting the pipe by disposing the holes symmetrically along the length of the pipe. Specifically, there are 180 degrees in a semi-circle (i.e., the top half of the cylindrically polishing pipe defined by the horizontal diameter of the same). If the two outermost rows are spaced 120 degrees from one another,

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then positioning each outermost row approximately 30 degrees above the horizontal diameter will effect symmetrical distribution of flow exiting the polishing pipe.

With regard to claims 7 and 8, it would have been obvious to one having ordinary skill in the art of irrigation and drainage at the time the invention was made to determine an optimal value for the angle between adjacent lines of holes in the receiver pipes of the device shown by the combination of Houck et al. '123 and Hewlett '408 and as suggested by Atchley et al. '229. The motivation would have been to effect a desired fluid retention time in the receiver pipes.

With regard to claim 10, it would have been obvious to one having ordinary skill in the art of irrigation and drainage at the time the invention was made to modify the device shown by the combination of Houck et al. '123, Hewlett '408 and Atchley et al. '229 such that it would include an access port. The motivation would have been to provide a means for accessing to the interior of the polishing pipe.

With regard to claim 11, it would have been obvious to one having ordinary skill in the art of pipes at the time the invention was made to modify the device shown by Houck et al. '123 and Hewlett '408 such that it would include a connection device as taught by Atchley et al. '229. The motivation would have been to provide a means to attach polishing pipes one to another in series.

With regard to claims 12 and 13, it would have been obvious to one having ordinary skill in the art of pipes at the time the invention was made to modify the device shown by Houck et al. '123 and Hewlett '408 such that it would include markings as taught by Atchley et

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al. '229. The motivation would have been to facilitate proper orientation of the polishing and receiving pipes.

With regard to claims 18 and 20, it has been held that matters relating to ornamentation only which have no mechanical function cannot be relied upon to patentably distinguish the claimed invention from the prior art. *In re Seid* , 161 F.2d 229, 73 USPQ 431 (CCPA 1947). Therefore, the recited plurality of slots is anticipated by the plurality of holes shown by Houck et al. '123.

With regard to claim 21, it would have been obvious to one having ordinary skill in the art of irrigation /drainage at the time the invention was made to modify the system shown by the combination of Houck et al. '123, Hewlett '408 and Atchley et al. '229 such that it would include a second assembly placed perpendicularly to a first assembly. The motivation would have been to facilitate distribution of the effluent in a desired geometrical configuration.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tara L. Mayo whose telephone number is 703-305-3019. The examiner can normally be reached on Monday through Friday 8:30 AM to 5:00 PM.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will can be reached on 703-308-3870. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



08 November 2004



ROBERT E. PEZZUTO
PRIMARY EXAMINER